

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A self calibrating network comprising:  
a first node transmitting a calibration data packet; and  
a second node receiving said calibration data packet and determining a calibration value for said second node to optimize the a transfer of data from said first node to said second node, said calibration value determined from at least one of available criteria comprising a noise measurement value, a propagation delay value and a bit rate error value.
2. (previously presented) The self calibrating network according to claim 1, wherein:  
said second node stores said calibration value in a calibration memory.
3. (previously presented) The self calibrating network according to claim 1, wherein:  
said calibration data packet contains a node identification associated with said first node.
4. (previously presented) The self calibrating network according to claim 1, wherein:  
said second node repeatedly accepts copies of said calibration data packet from said first node until the transfer of data from said first node to said second node is optimized.

5. (previously presented) The self calibrating network according to claim 2, wherein:

said calibration memory stores said calibration value associated with a node identification.

6. (previously presented) The self calibrating network according to claim 1, wherein:

said first node repeatedly transmits a calibration data packet until said second node acknowledges an optimal calibration value has been determined.

7. (previously presented) The self calibrating network according to claim 1, wherein:

said one of said first node or said second node issues a network lock command on the network, ceasing nodes other than said first node or said second node from communicating on the network.

8. (previously presented) The self calibrating network according to claim 7, wherein:

said first node or said second node issues an unlock command on the network, giving permission to all nodes on the network to again begin communication.

9. (currently amended) A method for self calibrating a network comprising:

transmitting a calibration data packet from a first node; and

receiving said calibration data packet by a second node and determining a calibration value for said second node to optimize the a transfer of data from said first node to said second node, said calibration value determined from at least one of available criteria comprising a noise measurement value, a propagation delay value and a bit rate error value.

10. (previously presented) The method for self calibrating a network according to claim 9, further comprising:

storing said calibration value in a calibration memory.

11. (previously presented) The method for self calibrating a network according to claim 9, further comprising:

associating a node identification associated with said first node in said calibration data packet.

12. (previously presented) The method for self calibrating a network according to claim 9, further comprising:

repeatedly accepting copies of said calibration data packet by said second node from said first node until the transfer of data from said first node to said second node is optimized.

13. (previously presented) The method for self calibrating a network according to claim 10, further comprising:

storing in said calibration memory said calibration value associated with a node identification.

14. (previously presented) The method for self calibrating a network according to claim 9, further comprising:

repeatedly transmitting from said first node a calibration data packet until said second node acknowledges an optimal calibration value has been determined.

15. (previously presented) The method for self calibrating a network according to claim 9, further comprising:

issuing from said one of said first node or said second node a network lock command on the network, ceasing nodes other than said first node or said second node from communicating on the network.

16. (previously presented) The method for self calibrating a network according to claim 15, further comprising:

issuing from said first node or said second node an unlock command on the network, giving permission to all nodes on the network to again begin communication.

17. (currently amended) A means for self calibrating a network comprising:

a transmitter means for transmitting a calibration data packet from a first node; and

a receiver means for receiving said calibration data packet from said first node and determining a calibration value for said second node to optimize the a transfer of data from said first node to said second node, said calibration value determined from at least one of available criteria comprising a noise measurement value, a propagation delay value and a bit rate error value.

18. (previously presented) The means for self calibrating a network according to claim 17, further comprising:

a storage means for storing said calibration value in a calibration memory.

19. (previously presented) The means for self calibrating a network according to claim 17, further comprising:

an associate means for associating a node identification with said first node in said calibration data packet.

20. (previously presented) The means for self calibrating a network according to claim 17, further comprising:

a repeated acceptor means for repeatedly accepting copies of said calibration data packet by said second node from said first node until the transfer of data from said first node to said second node is optimized.

21. (previously presented) The means for self calibrating a network according to claim 17, further comprising:

a storage means in said calibration memory said calibration value associated with a node identification.

22. (previously presented) The means for self calibrating a network according to claim 17, further comprising:

a repeated transmitter means repeatedly transmitting from said first node a calibration data packet until said second node acknowledges an optimal calibration value has been determined.

23. (previously presented) The means for self calibrating a network according to claim 17, further comprising:

an issue means for issuing from said one of said first node or said second node a network lock command on the network, ceasing nodes other than said first node or said second node from communicating on the network.

24. (previously presented) The means for self calibrating a network according to claim 23, further comprising:

an issue means for issuing from said first node or said second node an unlock command on the network, giving permission to all nodes on the network to again begin communication.